INDEX OF SUBJECTS FOR VOLUME 40

Abscess
  acute dento-alveolar, 115
  unclassified *Eubacterium* taxon in, 115
Acanthamoeba
  adherence and internalisation of bacteria, 148
Adenoviruses
  in eye infections, 385
  typing by restriction enzyme analysis, 385
Adherence
  Aeromonas spp. to colon cells, 55
  B. fragilis to colon cells, 393
  bacteria to *Acanthamoeba* spp., 148
  E. coli to HeLa cells, 95, 236
  S. aureus to epithelial cells, 79
  S. epidermidis, to HSV-infected cells, 48
  staphylococci to plastic materials, 37, 43
Aeromonas
  A. hydrophila in childhood diarrhoea, 10
  adherence to Caco-2 cells, 55
  cytotoxin, 188
  enteropathogenicity, 55
  haemagglutinating activities, 188
Agglutination assay, latex, 31, 270
Amino acids
  utilisation by intestinal flora, 179
Ampicillin, susceptibility of *M. catarrhalis*, 252
Anaerobes
  B. fragilis, haemagglutination and adherence, 393
  effects of neuraminidase on pathogenicity, 393
  synergy of *P. intermedia* with *S. milleri* group, 118
"Anguillina coli"
  genetic characterisation, 365
  in intestinal disease, 365
Antibiotic resistance
  apramycin, and *E. coli*, 221
  chromosomally-mediated, and virulence, 305
  gentamicin, and *E. coli*, 221
  gentamicin, and genes of veterinary origin, 221
  glycopeptides, and gram-positive bacteria, 375
  imipenem, and *E. aerogenes*, 403
  methicillin and *S. aureus*, 98
Antibiotics and other antimicrobial substances
  ampicillin susceptibility of *M. catarrhalis*, 252
  cephalosporin susceptibility of *M. catarrhalis*, 252
  cephalosporins, and imipenem resistance, 403
  effects of biofilm of *S. epidermidis*, 43
  and endotoxin release, 23
Antibodies
  against *B. pertussis*, 205, 307
  against β-haemolytic streptococci, 323
  against *E. coli*, 424
  against hepatitis viruses, 227
  against influenza A virus, 261
  against *M. pneumoniae*, 288
  against *M. pulmonis*, 197
  against oral *Treponema* spp., 62
  against *P. gingivalis*, 397
  and transfusion-transmitted infections, 227
  see also Monoclonal antibodies
Antifungal activity, of bronchoalveolar lavage fluid, 350
Antigens
  of *B. burgdorferi*, 293
  of *B. pertussis*, 205, 307
  of β-haemolytic streptococci, 323
  of *Brucella* spp., 174
  of *C. difficile*, 270
  flagellar, of *C. chawoei*, 70
  of hepatitis viruses, 227
  of *N. meningitidis*, 157
  of oral *Treponema* spp., 62
  of *P. gingivalis*, 397
  of *S. sobrinus*, 330
  synthetic peptides, 397
Antiseptics, resistance of staphylococci, 214
Apramycin resistance, and *E. coli*, 221

Bacteraemia, viridans streptococci, 202
Bacteroides fragilis
  haemagglutination and adherence, 393
  pathogenicity, and neuraminidase, 393
Blood, detection of fungal infections, 358
Blood donors, 227
Blood transfusions, viral hazards, 227
BOOKS RECEIVED
  Developments in Biological Standardization. Volume 78. Poliovirus attentuation: molecular mechanisms and practical aspects (Edited by F. Brown and B. P. Lewis), 155
  Developments in Biological Standardization Transmissible Spongiform Encephalopathies. Impact on Animal and Human Health (Edited by The International Association of Biological Standardization), 442
  Emerging Infections. Microbial Threats to Health in the United States (Edited by J. Lederberg, R. E. Shope and S. C. Oaks), 156
  Emerging Viruses (Edited by S. S. Morse), 442
  Encyclopedia of Antibiotics, 3rd edition (J. S. Glasby), 304
  Flow Cytometry in Microbiology (Edited by D. Lloyd), 76
  Fungal Infection. Diagnosis and Management (M. D. Richardson and D. W. Warnock), 374
  General Microbiology, 7th edition (H. G. Schlegel), 304
  Genetic Interactions Among Microorganisms in the Natural Environment (Edited by Elizabeth M. H. Wellington and Jan D. Van Elsas), 156
  Human Virology (L. Collier and J. Oxford), 374
  Laboratory-Acquired Infections, 3rd edition (Edited by C. H. Collins), 442
  Microbial and Parasitic Infection (Edited by B. I. Duerden, T. M. S. Reid and J. M. Jewsbury), 303
  Microbiology Colour Guide (T. J. Inglis and A. P. West), 76
  Molecular Medical Science Series. Vaccine Design (F. Brown, G. Dougan, E. M. Hoey, S. J. Martin, B. K. Rima and A. Trudgett), 303
  Pediatric and Adolescent Medicine. Volume 4. Pediatric Infectious Diseases (Edited by D. Engelhard, M. I. Marks and D. Branski), 155
Bordetella pertussis
  coughing rat model of pertussis, 205, 307
  immune response to infection, 205, 307
  vaccine, 307
Borrelia burgdorferi
  antigens, 293
  clinical presentation of disease, 77
  diagnosis of infection, 77, 293
  epidemiology, 77
  IgG in antibody response, 293
Botulism
  clinical features, 379
  treatment, 379
Brachyspora aalborgi
  genetic characterisation, 365
  in intestinal disease, 365
Bronchoalveolar lavage fluid
  anti-*Candida* activity, 350
Brucella
  monoclonal antibody, 174
  removal of LPS from cytoplasmic extract, 174

Campylobacters
  typing and epidemiology, 141
Cancer patients, neutropenic, 202
Candida
  C. albicans, phenotypic switching, 416
  C. albicans, structural composition of colony types, 416

detection by polymerase chain reaction, 358
susceptibility to bronchoalveolar lavage fluid, 350
Capsule, of *S. aureus*, 79
Cefotaxime, and endotoxin release, 23
Cell culture
adherence of *B. fragilis*, 393
adherence of *E. coli*, 95, 236
cytotoxicity of *Aeromonas* spp., 188
cytotoxicity of *V. mimicus*, 194
detection of *V. cholerae* toxins, 31
HSV-infected, and bacterial adherence, 48
invasiveness of *E. coli*, 236
Cephalosporins
and imipenem resistance, 403
susceptibility of *M. catarrhalis*, 252
Chromatography, affinity, 174
Ciprofloxacin, and endotoxin release, 23
Clostridia
C. botulinum, and botulism, 379
C. botulinum, toxin, 379
C. chauvoei, flagellar antigens, 70
C. chauvoei, monoclonal antibodies, 70
C. difficile, detection in faecal specimens, 270
C. difficile, growth inhibition by faecal flora, 179
C. difficile, kinetics of appearance of intestinal lesions, 102
C. difficile, toxins, 102
Coagulase production by *S. aureus*, 79, 344
Continuous flow culture, 179
Cough, rat model of pertussis, 205, 307
Cryptococcus neoformans
dormancy, 165
meningitis, 165
Culture media, for methicillin-resistant *S. aureus*, 98
Cytokines
induction by *M. avium*, 129
and multiplication of *P. brasiliensis*, 159
Cytotoxins
of *Aeromonas* spp., 188
of *V. cholerae*, 31
of *V. mimicus*, 194

Diarrhoea
childhood: aetiological agents, 10
E. coli infection, 3, 10, 90, 95, 229
Disinfectants, resistance of staphylococci, 214
DNA
fingerprinting *Campylobacter* spp., 141
genotypic typing of *Salmonella* serotype Enteritidis, 15
overview of typing methods, 1
P. acnes, detection in vitreous samples, 408
phenotypic multidrug resistance of staphylococci, 214
probes for detection of *E. coli*, 90, 428
typing methods for *N. meningitidis*, 157

Electronmicroscopy
adherence of *Aeromonas* spp. in cell culture, 55
antibiotic-induced endotoxin release, 23
immuno-electronmicroscopy, 282
outer membrane of oral *Treponema* spp., 62
production of intestinal lesions by *C. difficile*, 102
scanning, 23, 102, 416
structural composition of *C. albicans* colony types, 416
surface structures of *P. aeruginosa*, 282
transmission, 55, 62
Electrophoresis
multilocus enzyme, 157, 229, 365
pulsed-field gel, 15
see also PAGE; SDS–PAGE
ELISA
μ-capture IgM method, 288
detection of Shiga-like toxin, 241
screening for cholera toxin, 31
in serodiagnosis of *B. burgdorferi* infection, 293
in serodiagnosis of *M. pneumoniae* infection, 288
Endocarditis, infective, 110, 330
Endophthalmitis, delayed post-operative, 408
Endotoxin, antibiotic-induced release, 23
Entamoeba histolytica, in childhood diarrhoea, 10
Enterobacter
E. aerogenes, imipenem resistance, 403
E. cloacae, antibiotic-induced endotoxin release, 23
Enterococcus, glycopeptide resistance, 375
Enteropathogens
in childhood diarrhoea in Lagos, Nigeria, 10
Enterotoxins
of *V. cholerae*, 31, 246
of *V. mimicus*, 194
Epidemiology
aetiological agents of childhood diarrhoea, 10
B. burgdorferi, 77
Campylobacter spp., 141
E. coli O157 infection, 3
P. aeruginosa, 275, 313
Salmonella serotype Enteritidis, 15
Salmonella serotype Livingstone, 134
Erratum, 374
Escherichia coli
adherence to HeLa cells, 95, 236
antibiotic-induced endotoxin release, 23
apramycin resistance, 221
carrying *inv* gene of *Y. pseudotuberculosis*, 236
cytotoxic necrotising factor, 428
detection by gene probes, 90, 428
in diarrhoea, 10, 90, 95, 229
effect of iron on invasiveness, 236
enteroadherent (EAEC), 10
enterohaemorrhagic (EHEC), 10
enteropathogenic (EPEC), 10, 229
enterotoxigenic (ETEC), 10
epidemiology, 3, 10
genetic relationships and virulence, 229
gentamicin resistance, 221
in haemolytic uraemic syndrome, 3, 338
isolation from faeces, 424
lipopolysaccharide, 229
outer-membrane protein, 229
pathogenicity and *eaeA* sequences, 90
plasmids, 221, 236
Shiga-like toxins, 241, 338
verocytotoxin-producing (VTEC), 3, 424
veterinary aspects of transmission, 3
virulence factors, 229, 305
Esterases, of *P. aeruginosa*, 313
Eubacterium
in acute dento-alveolar abscess, 115
unclassified taxon, 115
Eye infections
adenoviruses, 385
P. acnes in post-operative endophthalmitis, 408

Faeces
aetiological agents of childhood diarrhoea, 10
detection of *C. difficile*, 270
detection of Shiga-like toxin of *E. coli*, 241
growth inhibition of *C. difficile* by faecal flora, 179
isolation of *E. coli* from, 424
Fimbriae, of *P. gingivalis*, 397
Flagella, of *C. chauvoei*, 70
Flow cytometry, 48
Fungi, detection by polymerase chain reaction, 358

Gastro-enteritis, *Salmonella* spp., 15, 134
Genes
chromosomally-mediated antibiotic resistance and virulence, 305
genetic characterisation of intestinal spirochaetes, 365
genetic heterogeneity of *P. aeruginosa*, 313
glycopeptide resistance of enterococci, 375
probes for detection of *E. coli*, 90, 428
probes for detection of *V. cholerae* toxins, 31
transfer of resistance plasmids, 221
Gentamicin resistance
of *E. coli*, 221
and genes of veterinary origin, 221
Giardia lamblia, in childhood diarrhoea, 10

Haemagglutination
by *Aeromonas* spp., 188
by *B. fragilis*, 393
Haemolysin
of *V. cholerae*, 246
of *V. mimicus*, 194
Haemolytic uraemic syndrome, 3, 338
Helicobacter pylori
pre-formed urease activity, 435
viable cell count technique, 435
Hepatitis viruses
hazards in blood transfusions, 227
Herpes simplex virus
role of receptors in bacterial adherence, 48
Hybridisation of DNA
detection of *E. coli*, 90, 428
genotypic typing of *Salmonella* serotype Enteritidis, 15
phenotypic multidrug resistance of staphylococci, 214
Hydrophobicity, of staphylococci, 37

Ileal loop test, in rabbits, 246
Imipenem resistance, and *E. aerogenes*, 403
Immune response
and *B. pertussis*, 205, 307
and fimbriae of *P. gingivalis*, 397
and induction of cytokines by *M. avium*, 129
and *M. pulmonis*, 197
Immunisation
mice against *C. chauwoei*, 70
mice against influenza A, 261
Immunoblotting
antigens of β-haemolytic streptococci, 323
antigens of *S. sobrinus*, 330
Immunoglobulins
IgA response in *M. pneumoniae* infection, 288
IgG, and *P. gingivalis* antigens, 397
IgG in *B. burgdorferi* infection, 293
IgG in *B. pertussis* infection, 205
IgG response in *M. pneumoniae* infection, 288
IgG response to influenza A virus, 261
IgM response in *M. pneumoniae* infection, 288
Immunomagnetic separation
isolation of *E. coli*, 424
Influenza A virus
antibody response to vaccines, 261
Intestinal spirochaetosis, 365
Intramammary infections, bovine, and *S. aureus*, 79
Iron, effect on invasiveness of *E. coli*, 236

β-Lactamases, of *M. catarrhalis*, 252
Leucocytosis, in *B. pertussis* infection, 205
Lipopolysaccharide (LPS)
antibiotic-induced release, 23
of *E. coli*, 229
of *P. aeruginosa*, 282, 305
removal from cytoplasmic extract of *Brucella*, 174
Lyme disease, 77, 293

Macrophages
effects on multiplication of *P. brasiliensis*, 159
induction of cytokines by *M. avium*, 129
Media *see* Culture media
Meningitis
cryptococcal, 165
meningococcal, 157
Methicillin resistance, and *S. aureus*, 98
Monoclonal antibodies
against β-haemolytic streptococci, 323
against *Brucella* LPS, 174
against flagella of *C. chauwoei*, 70
against *N. meningitidis*, 157
Monocytes
effects on multiplication of *P. brasiliensis*, 159
Moraxella catarrhalis
β-lactamases, 252
susceptibility to β-lactam antibiotics, 252

Mouse model
anti-*Candida* activity of bronchoalveolar lavage fluid, 350
pathogenicity of *S. milleri* group in pulmonary infection, 118
protection against colonisation by *M. pulmonis*, 197
Mycobacteria
M. avium, induction of cytokines, 129
M. bovis, rapid identification, 170
M. tuberculosis complex, rapid identification, 170
Mycoplasma
M. pneumoniae, immunoglobulin responses, 288
M. pneumoniae, serodiagnosis of infection, 288
M. pulmonis, antibodies, 197
M. pulmonis, vaginal colonisation of mice, 197

Neisseria meningitidis
antigens, 157
monoclonal antibodies, 157
serogroups, 157
typing methods, 157
Neural network analysis, artificial, 170
Neuraminidase, and pathogenicity of *B. fragilis*, 393

Oral bacteria
in acute dento-alveolar abscess, 115
antigens of *Treponema* spp., 62

PAGE
polymorphisms of esterases of *P. aeruginosa*, 313
Paracoccidioides brasiliensis
inhibition of multiplication by cytokines, 159
multiplication in monocytes and macrophages, 159
synthesis of heat-shock proteins, 124
Particle counting immunoassay, 270
Phage typing
criteria, 1
of *Salmonella* serotype Enteritidis, 15
Piperacillin, and endotoxin release, 23
Plasmids
antibiotic resistance of *E. coli*, 221
antibiotic resistance of *K. pneumoniae*, 221
and invasiveness of *E. coli*, 236
multidrug resistance of staphylococci, 214
Polymerase chain reaction
detection of *P. acnes* in vitreous samples, 408
screening for viraemia, 227
typing campylobacters, 141
typing of *E. coli* toxins, 338
Porins, and antibiotic resistance, 305
Porphyromonas gingivalis
fimbriae, 397
immune responses to antigens, 397
Prevotella intermedia
in pulmonary infections, 118
synergy with *S. milleri* group, 118
PROCEEDINGS OF THE PATHOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND; Supplement 1 (Vol. 40 No. 1, January 1994)
Propionibacterium acnes
detection in vitreous samples, 408
in post-operative endophthalmitis, 408
Proteins
heat-shock proteins of *P. brasiliensis*, 124
nucleocapsid C protein, of Semliki Forest virus, 389
outer-membrane of *E. coli*, 229
outer-membrane, of *N. meningitidis*, 157
staphylococcal protein A, 79
Pseudomonas aeruginosa
antibiotic resistance, 305
characterisation of surface structures, 282
epidemiology, 275
genetic heterogeneity, 313
lipopolysaccharide, 305
ribotyping, 275
virulence factors, 305
Pulmonary infections
anti-*Candida* activity of bronchoalveolar lavage fluid, 350

synergy of *P. intermedia* with *S. constellatus*, 118
Pyrolysis mass spectrometry, 165, 170

4-Quinolones, chromosomally-mediated resistance, 305

Radiolabelling, 37
Rats
coughing rat model of pertussis, 205, 307
Restriction analysis
genetic heterogeneity of *P. aeruginosa*, 313
resistance plasmids of *E. coli*, 221
resistance plasmids of *K. pneumoniae*, 221
typing of adenoviruses, 385
typing of *P. aeruginosa*, 275
Restriction fragment-length polymorphisms analysis
of *P. aeruginosa*, 313
of *Salmonella* serotype Enteritidis, 15
Ribotyping
P. aeruginosa, 275, 313
Salmonella serotype Enteritidis, 15
Rotavirus, in childhood diarrhoea, 10

Salmonellae
epidemiology of salmonellosis, 15, 134
insertion sequence IS*200*, 15
S. enterica phylogenetic studies, 15
serotype Enteritidis, 15
serotype Livingstone, 134
SDS–PAGE
lipopolysaccharides of *P. aeruginosa*, 282
outer membrane antigens of *Treponema* spp., 62
Semliki Forest virus
nucleocapsid C protein, 389
Serogroups, of *N. meningitidis*, 157
Serology
diagnosis of Lyme borreliosis, 293
diagnosis of *M. pneumoniae* infection, 288
particle counting immunoassay for *C. difficile*, 270
Serpulina, in intestinal disease, 365
Shiga-like toxins, 241, 338
Shigellae, in childhood diarrhoea, 10
Spirochaetes
genetic characterisation, 365
in intestinal disease, 365
Staphylococci
coagulase-negative, 85, 214, 344
criteria for phage typing, 1
glycopeptide resistance, 375
hydrophobicity, 37
multidrug resistance, 214
plasmids, 214
S. aureus, adherence to epithelial cells, 79
S. aureus, adherence to plastic materials, 37
S. aureus, in bovine intramammary infections, 79
S. aureus, capsule, 79
S. aureus, chromosomally-mediated antibiotic resistance, 305
S. aureus, coagulase deficiency, 344
S. aureus, haemolysin deficiency, 344
S. aureus, methicillin-resistant, 98
S. aureus, protein A, 79
S. aureus, toxins, 79
S. aureus, vaccine, 79
S. aureus, virulence factors, 79, 305
S. epidermidis, adherence to HSV-infected cells, 48
S. epidermidis, adherence to plastic materials, 37, 43
S. epidermidis, effect of biofilm on antimicrobial agents, 43
Streptococci
bacteraemia, 202
in endocarditis, 110, 330
β-haemolytic, 323
S. equisimilis, antigens, 323
S. equisimilis, monoclonal antibodies, 323
S. milleri group, in pulmonary infections, 118
S. milleri group, synergy with *P. intermedia*, 118
S. sobrinus, immunodominant antigen, 330
viridans, identification scheme, 202
virulence factors, 110, 202
Synthetic peptide antigens, 397

Teicoplanin resistance, of gram-positive bacteria, 375
Tissue culture *see* Cell culture
Tobramycin, and endotoxin release, 23
Toxins
of *C. botulinum*, 379
of *C. difficile*, 102
of *E. coli*, 3, 241, 338
of *S. aureus*, 79
Shiga-like, 241, 338
of *V. mimicus*, 194
verocytotoxin, 3
see also Cytotoxins: Endotoxin: Enterotoxins
Treponema
oral strains, 62
outer membrane antigens, 62
Trichomonas hominis, in childhood diarrhoea, 10
Trichuris trichiura, in childhood diarrhoea, 10
Typing methods: bacterial, an overview, 1

Urease activity, of *H. pylori*, 435

Vaccines,
against *B. pertussis*, 307
against influenza A virus, 261
against *S. aureus*, 79
Vancomycin resistance, of gram-positive bacteria, 375
Verocytotoxins, 3
Viable cell count technique, 435
Vibrio
V. cholerae, enterotoxin production, 246
V. cholerae, haemolysin production, 246
V. cholerae, toxin in non-O1 strains, 31
V. mimicus, multiple toxin types, 194
Virulence factors
and chromosomally-mediated antibiotic resistance, 305
E. coli, 229
S. aureus, 79
in streptococcal endocarditis, 110
viridans streptococci, 110, 202
Viruses
in childhood diarrhoea, 10
and hazards of blood transfusion, 227
see also Specific viruses

Whooping cough, rat model, 205, 307

Yersinia
Y. enterocolitica in childhood diarrhoea, 10
Y. pseudotuberculosis, *inv* gene, 236

INDEX OF AUTHORS FOR VOLUME 40

ABSI E G, *see* WADE *et al.*, 115
ACHESON D W K, *see* LAW *et al.*, 241
ADENUGA A, *see* OGUNSANYA *et al.*, 10
ADITHAN C, *see* BEN-AHMEIDA *et al.*, 261
ALBERT M J, *see* RAMAMURTHY *et al.*, 194
ALLEN JANET L, COWAN M E, COCKROFT P M. A comparison of three semi-selective media for the isolation of methicillin-resistant *Staphylococcus aureus*, 98
AMAKO K, *see* MISUMI *et al.*, 282
APPELMELK B J, *see* NAMAVAR *et al.*, 393
AVESANI V, CAMBIASO C, GUARIN J L, LICK A, DELMÉE M. A particle counting immunoassay for the direct detection of *Clostridium difficile* serogroup specific antigen in faecal specimens, 270

BARAKAT A, *see* PICARD *et al.*, 313
BARBARA J A J. Viral hazards of transfusion: new developments, 227
BASTIDE M, *see* CASTEX *et al.*, 102
BECQ-GIRAUDON B, *see* ROBLOT *et al.*, 379
BEIGHTON D, CARR A D, OPPENHEIM BERYL A. Identification of viridans streptococci associated with bacteraemia in neutropenic cancer patients, 202
BEN-AHMEIDA E T S, POTTER C W, GREGORIADIS G, ADITHAN C, JENNINGS R. IgG subclass response and protection against challenge following immunisation of mice with various influenza A vaccines, 261
BES MICHÈLE, *see* VANDENESCH *et al.*, 344
BION J F, *see* CROSBY *et al.*, 23
BISHOP PATRICIA A, *see* WADE *et al.*, 115
BJORVATN B, *see* MYLVAGANAM *et al.*, 256
BOTTONE E J, PEREZ A A, GORDON R E, QURESHI M N. Differential binding capacity and internalisation of bacterial substrates as factors in growth rate of *Acanthamoeba* spp., 148
BOUZARI S, JAFARI A, FARHOUDI-MOGHADDAM A A, SHOKOUHI F, PARSI M. Adherence of non-enteropathogenic *Escherichia coli* to HeLa cells, 95
BREUX J P, *see* ROBLOT *et al.*, 379
BROOKS W, BURNIE J P. Cloning and sequencing the endocarditis immunodominant antigen of *Streptococcus sobrinus* strain MUCOB 263, 330
BROWN D J, *see* OLSEN *et al.*, 15
BRUMMER E, *see* MOSCARDI-BACCHI *et al.*, 159
BUONFIGLIO V, *see* CONTE *et al.*, 236
BURNIE J P, *see* BROOKS AND BURNIE, 330
BURNS LOUISE, *see* JOHNSON *et al.*, 221

CAMBIASO C, *see* AVESANI *et al.*, 270
CAPRIOLI A, *see* RÜSSMANN *et al.*, 338
CARR A D, *see* BEIGHTON *et al.*, 202
CASTEX FRANCOISE, JOUVERT S, BASTIDE M, CORTHIER G. Kinetics of appearance of intestinal lesions in mice mono-associated with a lethal or non-lethal strain of *Clostridium difficile*, 102
CHALLACOMBE S J, *see* RADFORD *et al.*, 416
CHAPMAN P A, WRIGHT D J, SIDDONS C A. A comparison of immunomagnetic separation and direct culture for the isolation of verocytotoxin-producing *Escherichia coli* O157 from bovine faeces, 424
CHASLUS-DANCLA ELISABETH, *see* LEROY *et al.*, 90
CHEESEMAN SARAH L, *see* WADE *et al.*, 115
CIMOLAI N, MAH D G. Immunodominant antigens of *Streptococcus equisimilis* shared by other β-haemolytic streptococci, 323
COCKROFT P M, *see* ALLEN *et al.*, 98
COIA J E, *see* SHARP *et al.*, 3
COLWELL RITA R, *see* RAMAMURTHY *et al.*, 194
CONTE MARIA PIA, LONGHI CATIA, BUONFIGLIO V, POLIDORO M, SEGANTI LUCILLA, VALENTI PIERA. The effect of iron on the invasiveness of *Escherichia coli* carrying the *inv* gene of *Yersinia pseudotuberculosis*, 236
COOKE E M, *see* JOHNSON *et al.*, 221
CORNELIUSSEN LOTTE, *see* ESPERSEN *et al.*, 37
CORTHIER G, *see* CASTEX *et al.*, 102
COWAN M E, *see* ALLEN *et al.*, 98
CROSBY HEATHER A, BION J F, PENN C W, ELLIOTT T S J. Antibiotic-induced release of endotoxin from bacteria *in vitro*, 23
CURNOW J, *see* SHARP *et al.*, 3

DE ARELLANO E RAMIREZ, PASCUAL A, MARTINEZ-MARTINEZ L, PEREA E J. Activity of eight antibacterial agents on *Staphylococcus epidermidis* attached to Teflon catheters, 43
DE GRAAF-MILTENBURG LIA A M, VAN VLIET KARIN E, TEN HAGEN T L M, VERHOEF J, VAN STRIJP J A G. The role of HSV-induced Fc- and C3b(i)-receptors in bacterial adherence, 48
DE GRAAFF J, *see* NAMAVAR *et al.*, 393
DELMÉE M, *see* AVESANI *et al.*, 270
DENAMUR E, *see* PICARD *et al.*, 313
DENNING D W, *see* LAW *et al.*, 241
DEVILLEGER A, *see* ROBLOT *et al.*, 379
DOSS S A. Chromosomally-mediated antibiotic resistance and virulence, 305

EGUCHI K, *see* MISUMI *et al.*, 282
ELION J, *see* PICARD *et al.*, 313
ELLIOTT T S J, *see* CROSBY *et al.*, 23
ENDTZ H P, *see* GIESENDORF *et al.*, 141
ESPERSEN F, WURR MERETE, CORNELIUSSEN LOTTE, HØG ANNE-LISE, ROSDAHL VIBEKE THAMDRUP, FRIMODT-MØLLER N, SKINHØJ P. Attachment of staphylococci to different plastic tubes *in vitro*, 37
ETIENNE J, *see* VANDENESCH *et al.*, 344

FARHOUDI-MOGHADDAM A A, *see* BOUZARI *et al.*, 95
FATTORINI L, XIAO Y, LI B, SANTORO C, IPPOLITI F, OREFICI G. Induction of IL−1β, IL-6, TNF-α, GM-CSF and G-CSF in human macrophages by smooth transparent and smooth opaque colonial variants of *Mycobacterium avium*, 129
FAUCHÈRE J L, *see* ROBLOT *et al.*, 379
FEAVERS I M, *see* MAIDEN AND FEAVERS, 157
FORSEN K-O, *see* SEPPÄLÄ *et al.*, 293
FOSSATI C A, *see* GOLDBAUM *et al.*, 174
FREEMAN R, GOODACRE R, SISSON P R, MAGEE J G, WARD A C, LIGHTFOOT N F. Rapid identification of species within the *Mycobacterium tuberculosis* complex by artificial neural network analysis of pyrolysis mass spectra, 170
FRIMODT-MØLLER N, *see* ESPERSEN *et al.*, 37
FURR P M, *see* TAYLOR-ROBINSON AND FURR, 197

GANGULI LEELA A, *see* LAW *et al.*, 241
GAUDIN ODETTE G, *see* GRATTARD *et al.*, 275
GEORGE R C, *see* JOHNSON *et al.*, 221
GIESENDORF B A J, GOOSSENS H, NIESTERS H G M, VAN BELKUM A, KOEKEN A, ENDTZ H P, STEGEMAN H, QUINT W G V. Polymerase chain reaction-mediated DNA fingerprinting for epidemiological studies on *Campylobacter* spp., 141
GOLDANI L Z, PICARD MICHELE, SUGAR A M. Synthesis of heat-shock proteins in mycelia and yeast forms of *Paracoccidioides brasiliensis*, 124
GOLDBAUM F A, RUBBI C P, FOSSATI C A. Removal of LPS from a *Brucella* cytoplasmic fraction by affinity chromatography with an anti-LPS monoclonal antibody as immunosorbent, 174
GOODACRE R, *see* FREEMAN *et al.*, 170
GOOSSENS H, *see* GIESENDORF *et al.*, 141
GORDON R E, *see* BOTTONE *et al.*, 148
GOULLET P, *see* PICARD *et al.*, 313
GRANSTRÖM M, HOLME T, SJÖGREN A M, ÖRTQVIST A, KALIN M.

The role of IgA determination by ELISA in the early serodiagnosis of *Mycoplasma pneumoniae* infection, in relation to IgG and μ-capture IgM methods, 288
GRATTARD FLORENCE, POZZETTO B, ROS A, GAUDIN ODETTE G. Differentiation of *Pseudomonas aeruginosa* strains by ribotyping: high discriminatory power by using a single restriction endonuclease, 275
GREENLAND T, *see* VANDENESCH *et al.*, 344
GREGORIADIS G, *see* BEN-AHMEIDA *et al.*, 261
GUARIN J L, *see* AVESANI *et al.*, 270

HALL ELIZABETH, PARTON R, WARDLAW A C. Cough production, leucocytosis and serology of rats infected intrabronchially with *Bordetella pertussis*, 205
HALL ELIZABETH, *see* PARTON *et al.*, 307
HAMADA S, *see* OGAWA *et al.*, 397
HAMOUR A A, *see* LAW *et al.*, 241
HAMPSON D J, *see* LEE AND HAMPSON, 365
HASE A, *see* NISHIKAWA *et al.*, 55
HEESEMANN J, *see* RÜSSMANN *et al.*, 338
HJETLAND R, *see* MYLVAGANAM *et al.*, 256
HOFSTAD T, *see* MYLVAGANAM *et al.*, 256
HØG ANNE-LISE, *see* ESPERSEN *et al.*, 37
HOIBY E ARNE, *see* MYLVAGANAM *et al.*, 256
HOLM S E, *see* MYLVAGANAM *et al.*, 256
HOLME T, *see* GRANSTRÖM *et al.*, 288
HOSEIN I K, *see* MAGEE *et al.*, 165
HUME E B H, *see* MANNING *et al.*, 110
HUNTER N, *see* MANNING *et al.*, 110
HUQ ANWARUL, *see* RAMAMURTHY *et al.*, 194
HYKIN P G, TOBAL K, MCINTYRE G, MATHESON M M, TOWLER H M A, LIGHTMAN S L. The diagnosis of delayed post-operative endophthalmitis by polymerase chain reaction of bacterial DNA in vitreous samples, 408

IPPOLITI F, *see* FATTORINI *et al.*, 129

JACQUEMIN E, *see* OSWALD *et al.*, 428
JAFARI A, *see* BOUZARI *et al.*, 95
JAKOB R. Nucleolar accumulation of Semliki Forest virus nucleocapsid C protein: influence of metabolic status, cytoskeleton and receptors, 389
JENNINGS R, *see* BEN-AHMEIDA *et al.*, 261
JOHNSON A P, BURNS LOUISE, WOODFORD N, THRELFALL E J, NAIDOO JAY, COOKE E M, GEORGE R C. Gentamicin resistance in clinical isolates of *Escherichia coli* encoded by genes of veterinary origin, 221
JOHNSON A P, *see* WOODFORD AND JOHNSON, 375
JOUVERT S, *see* CASTEX *et al.*, 102

KAI MASANORI, *see* YAMAMOTO-OSAKI *et al.*, 179
KALIN M, *see* GRANSTRÖM *et al.*, 288
KAMIYA SHIGERU, *see* YAMAMOTO-OSAKI *et al.*, 179
KARCH H, *see* RÜSSMANN *et al.*, 338
KAUFMANN M E, *see* TZOUVELEKIS *et al.*, 403
KIJIMA-TANAKA MAYUMI, TAMURA Y, SUZUKI SHOKO, NAGAMINE N, NAKAMURA M. Antigenic mimicry of *Clostridium chauvoei* flagella by polyclonal anti-idiotypic antibodies, 70
KIMURA T, *see* NISHIKAWA *et al.*, 55
KNOX K W, *see* MANNING *et al.*, 110
KOEKEN A, *see* GIESENDORF *et al.*, 141
KRONELD R, *see* SEPPÄLÄ *et al.*, 293

LAFONT J P, *see* LEROY *et al.*, 90
LANDRY MARIE L, *see* MAHAFZAH AND LANDRY, 385
LASSENIUS R, *see* SEPPÄLÄ *et al.*, 293
LAW D, HAMOUR A A, ACHESON D W K, PANIGRAHI H, GANGULI LEELA A, DENNING D W. Diagnosis of infections with Shiga-like toxin-producing *Escherichia coli* by use of enzyme-linked immunosorbent assays for Shiga-like toxins on cultured stool samples, 241
LEBEAU CHRISTINE, *see* VANDENESCH *et al.*, 344
LEE J I, HAMPSON D J. Genetic characterisation of intestinal spirochaetes and their association with disease, 365
LEELAPORN AMORNRUT, PAULSEN I T, TENNENT JAN M, LITTLEJOHN T G, SKURRAY R A. Multidrug resistance to antiseptics and disinfectants in coagulase-negative staphylococci, 214
LEROY SABINE M, LESAGE MARIE-CLAUDE, CHASLUS-DANCLA ELISABETH, LAFONT J P. Presence of *eaeA* sequences in pathogenic and non-pathogenic *Escherichia coli* strains isolated from weaned rabbits, 90
LESAGE MARIE-CLAUDE, *see* LEROY *et al.*, 90
LEWIS M A O, *see* WADE *et al.*, 115
LICK A, *see* AVESANI *et al.*, 270
LIGHTFOOT N F *see* FREEMAN *et al.*, 170
LIGHTMAN S L, *see* HYKIN *et al.*, 408
LINTERMANS P, *see* OSWALD *et al.*, 428
LITTLEJOHN T G, *see* LEELAPORN *et al.*, 214
LIVERMORE D M, *see* YEO AND LIVERMORE, 252
LONGHI CATIA, *see* CONTE *et al.*, 236
LUNG MARIA LI, *see* YAM *et al.*, 229

MCDEVITT D, *see* VANDENESCH *et al.*, 344
MACFARLANE T W, *see* SAMARANAYAKE *et al.*, 350
MCINTYRE G, *see* HYKIN *et al.*, 408
MACLAREN D M, *see* NAMAVAR *et al.*, 393
MACRAE I C, *see* MAJEED AND MACRAE, 188
MAGEE J G, *see* FREEMAN *et al.*, 170
MAGEE J T, PHILPOT C, YANG JIAN, HOSEIN I K.Pyrolysis typing of isolates from a recurrence of systemic cryptococcosis, 165
MAH D G, *see* CIMOLAI AND MAH, 323
MAHAFZAH A, LANDRY MARIE L. Restriction enzyme analysis of adenovirus isolates from sporadic and epidemic ocular infections: experience in a clinical laboratory, 385
MAIDEN M C J, FEAVERS I M. Meningococcal typing, 157
MAINIL J, *see* OSWALD *et al.*, 428
MAJEED K N, MACRAE I C. Cytotoxic and haemagglutinating activities of motile *Aeromonas* species, 188
MAKIMURA K, MURAYAMA SOMAY Y, YAMAGUCHI H. Detection of a wide range of medically important fungi by the polymerase chain reaction, 358
MANDAL B K, *see* RAMAMURTHY *et al.*, 194
MANNING J E, HUME E B H, HUNTER N, KNOX K W. An appraisal of the virulence factors associated with streptococcal endocarditis, 110
MARÉCHAUD R, *see* ROBLOT *et al.*, 379
MARTINEZ-MARTINEZ L, *see* DE ARELLANO *et al.*, 43
MATHESON M M, *see* HYKIN *et al.*, 408
MENTIS A F, *see* TZOUVELEKIS *et al.*, 403
MISUMI H, UMEDA A, EGUCHI K, OKADA K, SAWAE Y, NIHO Y, AMAKO K. Characterisation of the external surfaces of *Pseudomonas aeruginosa* isolated from human blood and respiratory tract, 282
MOSCARDI-BACCHI MAURA, BRUMMER E, STEVENS D A. Support of *Paracoccidioides brasiliensis* multiplication by human monocytes or macrophages: inhibition by activated phagocytes, 159
MUNRO D S, *see* OLD *et al.*, 134
MURAYAMA SOMAY Y, *see* MAKIMURA *et al.*, 358
MYLVAGANAM H, BJORVATN B, HOFSTAD T, HJETLAND R, HOIBY E ARNE, HOLM S E. Small-fragment restriction endonuclease analysis in epidemiological mapping of group A streptococci, 256

NAGAMINE N, *see* KIJIMA-TANAKA *et al.*, 70
NAIDOO JAY, *see* JOHNSON *et al.*, 221
NAIR G B, *see* RAMAMURTHY *et al.*, 194
NAKAMURA M, *see* KIJIMA-TANAKA *et al.*, 70
NAMAVAR F, VAN DER BIJL M W, APPELMELK B J, DE GRAAFF J, MACLAREN D M. The role of neuraminidase in haemagglutination and adherence to colon WiDr cells by *Bacteroides fragilis*, 393
NAUMAN R K, *see* TALL AND NAUMAN, 62
NIESTERS H G M, *see* GIESENDORF *et al.*, 141
NIHO Y, *see* MISUMI *et al.*, 282
NISHIKAWA Y, HASE A, OGAWASARA J, SCOTLAND S M, SMITH H R, KIMURA T. Adhesion to and invasion of human colon carcinoma Caco-2 cells by *Aeromonas* strains, 55
NOVICK R P, *see* VANDENESCH *et al.*, 344

O'BRIEN A D, *see* OSWALD *et al.*, 428

O'Connell Susan. Lyme disease in the UK: epidemiology, clinical presentations and diagnosis, 77
Ogawa T, Ogo H, Uchida H, Hamada S. Humoral and cellular immune responses to the fimbriae of *Porphyromonas gingivalis* and their synthetic peptides, 397
Ogawasara J, *see* Nishikawa *et al.*, 55
Ogo H, *see* Ogawa *et al.*, 397
Ogunsanya T I, Rotimi V O, Adenuga A. A study of the aetiological agents of childhood diarrhoea in Lagos, Nigeria, 10
Okada K, *see* Misumi *et al.*, 282
Old D C, Porter-Boveri M, Munro D S. Human infection in Tayside, Scotland due to *Salmonella* serotype Livingstone, 134
Olsen J E, Skov Marianne N, Threlfall E J, Brown D J. Clonal lines of *Salmonella enterica* serotype Enteritidis documented by IS*200*-, ribo-, pulsed-field gel electrophoresis and RFLP typing, 15
Oppenheim Beryl A, *see* Beighton *et al.*, 202
Orefici G, *see* Fattorini *et al.*, 129
Örtqvist A, *see* Granström *et al.*, 288
Oswald E, Pohl P, Jacquemin E, Lintermans P, Van Muylem K, O'Brien A D, Mainil J. Specific DNA probes to detect *Escherichia coli* strains producing cytotoxic necrotising factor type 1 or type 2, 428
Ozawa Atsushi, *see* Yamamoto-Osaki *et al.*, 179

Panigrahi H, *see* Law *et al.*, 241
Parsi M, *see* Bouzari *et al.*, 95
Parton R, Hall Elizabeth, Wardlaw A C. Responses to *Bordetella pertussis* mutant strains and to vaccination: the coughing rat model of pertussis, 307
Parton R, *see* Hall *et al.*, 205
Pascual A, *see* De Arellano *et al.*, 43
Paulsen I T, *see* Leelaporn *et al.*, 214
Penn C W, *see* Crosby *et al.*, 23
Perea E J, *see* De Arellano *et al.*, 43
Perez A A, *see* Bottone *et al.*, 148
Philpot C, *see* Magee *et al.*, 165
Picard B, Denamur E, Barakat A, Elion J, Goullet P. Genetic heterogeneity of *Pseudomonas aeruginosa* clinical isolates revealed by esterase electrophoretic polymorphism and restriction fragment length polymorphism of the ribosomal RNA gene region, 313
Picard Michele, *see* Goldani *et al.*, 124
Pitt T L. Bacterial typing systems: the way ahead, 1
Pohl P, *see* Oswald *et al.*, 428
Polidoro M, *see* Conte *et al.*, 236
Porter-Boveri M, *see* Old *et al.*, 134
Potter C W, *see* Ben-Ahmeida *et al.*, 261
Poutrel B, *see* Sutra and Poutrel, 79
Pozzetto B, *see* Grattard *et al.*, 275

Quint W G V, *see* Giesendorf *et al.*, 141
Qureshi M N, *see* Bottone *et al.*, 148

Radford D R, Challacombe S J, Walter J D. A scanning electronmicroscopy investigation of the structure of colonies of different morphologies produced by phenotypic switching of *Candida albicans*, 416
Ramamurthy T, Albert M J, Huq Anwarul, Colwell Rita R, Takeda Yoshifumi, Takeda Tae, Shimada Toshio, Mandal B K, Nair G B. *Vibrio mimicus* with multiple toxin types isolated from human and environmental sources, 194
Reilly W J, *see* Sharp *et al.*, 3
Robins-Browne R M, *see* Yam *et al.*, 229
Roblot F, *see* Roblot *et al.*, 379
Roblot P, Roblot F, Fauchère J L, Devilleger A, Maréchaud R, Breux J P, Becq-Giraudon B. Retrospective study of 108 cases of botulism in Poitiers, France, 379
Ros A, *see* Grattard *et al.*, 275
Rosdahl Vibeke Thamdrup, *see* Espersen *et al.*, 37
Rotimi V O, *see* Ogunsanya *et al.*, 10
Rowe B, *see* Said *et al.*, 31
Rubbi C P, *see* Goldbaum *et al.*, 174
Rüssmann H, Schmidt H, Heesemann J, Caprioli A, Karch H. Variants of Shiga-like toxin II constitute a major toxin component in *Escherichia coli* O157 strains from patients with haemolytic uraemic syndrome, 338

Said Bengü, Scotland Sylvia M, Rowe B. The use of gene probes, immunoassays and tissue culture for the detection of toxin in *Vibrio cholerae* non-O1, 31
Saito A, *see* Shinzato and Saito, 118
Samaranayake L P, Tobgi R S, Macfarlane T W. Anti-*Candida* activity of murine bronchoalveolar lavage fluid, 350
Santoro C, *see* Fattorini *et al.*, 129
Sanyal S C, *see* Tikoo *et al.*, 246
Sawae Y, *see* Misumi *et al.*, 282
Sawamura Sadaaki, *see* Yamamoto-Osaki *et al.*, 179
Schauman K, *see* Seppälä *et al.*, 293
Schmidt H, *see* Rüssmann *et al.*, 338
Scotland S M, *see* Nishikawa *et al.*, 55
Scotland Sylvia M, *see* Said *et al.*, 31
Seganti Lucilla, *see* Conte *et al.*, 236
Seppälä I J T, Kroneld R, Schauman K, Forsen K-O, Lassenius R. Diagnosis of Lyme borreliosis: non-specific serological reactions with *Borrelia burgdorferi* sonicate antigen caused by IgG2 antibodies, 293
Sharp J C M, Coia J E, Curnow J, Reilly W J. *Escherichia coli* O157 infections in Scotland, 3
Shimada Toshio, *see* Ramamurthy *et al.*, 194
Shinzato T, Saito A. A mechanism of pathogenicity of "*Streptococcus milleri* group" in pulmonary infection: synergy with an anaerobe, 118
Shokouhi F, *see* Bouzari *et al.*, 95
Siddons C A, *see* Chapman *et al.*, 424
Singh D V, *see* Tikoo *et al.*, 246
Sisson P R, *see* Freeman *et al.*, 170
Sjögren A M, *see* Granström *et al.*, 288
Skinhøj P, *see* Espersen *et al.*, 37
Skov Marianne N, *see* Olsen *et al.*, 15
Skurray R A, *see* Leelaporn *et al.*, 214
Smith H R, *see* Nishikawa *see* 55
Stegeman H, *see* Giesendorf *et al.*, 141
Stevens D A, *see* Moscardi-Bacchi *et al.*, 159
Sugar A M, *see* Goldani *et al.*, 124
Sutra L, Poutrel B. Virulence factors involved in the pathogenesis of bovine intramammary infections due to *Staphylococcus aureus*, 79
Suzuki Shoko, *see* Kijima-Tanaka *et al.*, 70

Takeda Tae, *see* Ramamurthy *et al.*, 194
Takeda Yoshifumi, *see* Ramamurthy *et al.*, 194
Tall B D, Nauman R K. Outer membrane antigens of oral *Treponema* species, 62
Tamura Y, *see* Kijima-Tanaka *et al.*, 70
Taylor-Robinson D, Furr P M. Protection of mice against vaginal colonisation by *Mycoplasma pulmonis*, 197
Ten Hagen T L M, *see* De Graaf-Miltenburg *et al.*, 48
Tennent Jan M, *see* Leelaporn *et al.*, 214
Threlfall E J, *see* Johnson *et al.*, 221
Threlfall E J, *see* Olsen *et al.*, 15
Tikoo Anjali, Singh D V, Sanyal S C. Influence of animal passage on haemolysin and enterotoxin production in *Vibrio cholerae* O1 biotype E1 Tor strains, 246
Tobal K, *see* Hykin *et al.*, 408
Tobgi R S, *see* Samaranayake *et al.*, 350
Towler H M A, *see* Hykin *et al.*, 408
Tzelepi E, *see* Tzouvelekis *et al.*, 403
Tzouvelekis L S, Tzelepi E, Kaufmann M E, Mentis A F. Consecutive mutations leading to the emergence *in vivo* of imipenem resistance in a clinical strain of *Enterobacter aerogenes*, 403

Uchida H, *see* Ogawa *et al.*, 397
Umeda A, *see* Misumi *et al.*, 282

Valenti Piera, *see* Conte *et al.*, 236
Van Belkum A, *see* Giesendorf *et al.*, 141
Van der Bijl M W, *see* Namavar *et al.*, 393
Van Muylem K, *see* Oswald *et al.*, 428

VAN STRIJP J A G, *see* DE GRAAF-MILTENBURG *et al.*, 48
VAN VLIET KARIN E, *see* DE GRAAF-MILTENBURG *et al.*, 48
VANDENESCH F, LEBEAU CHRISTINE, BES MICHÈLE, MCDEVITT D, GREENLAND T, NOVICK R P, ETIENNE J. Coagulase deficiency in clinical isolates of *Staphylococcus aureus* involves both transcriptional and post-transcriptional defects, 344
VERHOEF J, *see* DE GRAAF-MILTENBURG *et al.*, 48

WADE W G, LEWIS M A O, CHEESEMAN SARAH L, ABSI E G, BISHOP PATRICIA A. An unclassified *Eubacterium* taxon in acute dento-alveolar abscess, 115
WALTER J D, *see* RADFORD *et al.*, 416
WARD A C *see* FREEMAN *et al.*, 170
WARDLAW A C, *see* HALL *et al.*, 205
WARDLAW A C, *see* PARTON *et al.*, 307
WOODFORD N, JOHNSON A P. Glycopeptide resistance in gram-positive bacteria: from black and white to shades of grey, 375
WOODFORD N, *see* JOHNSON *et al.*, 221
WRIGHT D J, *see* CHAPMAN *et al.*, 424
WURR MERETE, *see* ESPERSEN *et al.*, 37

XIA H X, KEANE C T, O'MORAIN C A. Pre-formed urease activity of *Helicobacter pylori* as determined by a viable cell count technique—clinical implications, 435
XIAO Y, *see* FATTORINI *et al.*, 129

YAM WING CHEONG, ROBINS-BROWNE R M, LUNG MARIA LI. Genetic relationships and virulence factors among classical enteropathogenic *Escherichia coli* serogroup O126 strains, 229
YAMAGUCHI H, *see* MAKIMURA *et al.*, 358
YAMAMOTO-OSAKI TAKAKO, KAMIYA SHIGERU, SAWAMURA SADAAKI, KAI MASANORI, OZAWA ATSUSHI. Growth inhibition of *Clostridium difficile* by intestinal flora of infant faeces in continuous flow culture, 179
YANG JIAN, *see* MAGEE *et al.*, 165
YEO S F, LIVERMORE D M. Effect of inoculum size on the in-vitro susceptibility to β-lactam antibiotics of *Moraxella catarrhalis* isolates of different β-lactamase types, 252